



LESSON PLAN

1. Stereotype identified by our partners:

“In Portugal there is sun all along the year”.

2. Subject

Geography, English

3. Timming

90 min

4. Goals

To prove our partners that we don't have sun all along the year.

5. Target

Secondary students (7th-9th grade)

6. Material

Paper, pencil, online websites, chalkboard, computers, projector, Internet access

7. Process

7. 1. The teacher presents four tables with information about the climate in the four countries/towns of the project and asks the students to analyze data about average precipitation per year, average precipitation days per year and sunshine hours during the year.

Climate for Samsun

| Climate data for Samsun | | | | | | | | | | | | | [hide] |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|----------------|----------------|------------------|
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| Record high °C (°F) | 24.2 (75.6) | 26.4 (79.5) | 34.5 (94.1) | 37 (99) | 36.4 (97.5) | 37.4 (99.3) | 37.5 (99.5) | 35.2 (95.4) | 38.3 (100.9) | 38.4 (101.1) | 31 (88) | 28.9 (84) | 38.4 (101.1) |
| Average high °C (°F) | 10.9 (51.6) | 11.1 (52) | 12 (54) | 15.3 (59.5) | 19 (66) | 23.7 (74.7) | 26.5 (79.7) | 27 (81) | 23.9 (75) | 20.1 (68.2) | 16.7 (62.1) | 13.2 (55.8) | 18.28 (64.97) |
| Daily mean °C (°F) | 7.1 (44.8) | 7 (45) | 7.9 (46.2) | 11.4 (52.5) | 15.6 (60.1) | 20.3 (68.5) | 23.3 (73.9) | 23.5 (74.3) | 20 (68) | 16 (61) | 12.3 (54.1) | 9.4 (48.9) | 14.48 (58.11) |
| Average low °C (°F) | 4.2 (39.6) | 3.9 (39) | 4.7 (40.5) | 8 (46) | 12.1 (53.8) | 16.2 (61.2) | 19.2 (66.6) | 19.6 (67.3) | 16.5 (61.7) | 12.8 (55) | 9.2 (48.6) | 6.4 (43.5) | 11.07 (51.9) |
| Record low °C (°F) | -8.1 (17.4) | -7.4 (18.7) | -7 (19) | -2.4 (27.7) | 2.7 (36.9) | 9 (48) | 13.4 (56.1) | 14 (57) | 7 (45) | 1.5 (34.7) | -2.8 (27) | -4 (25) | -8.1 (17.4) |
| Average precipitation mm (inches) | 74 (2.91) | 66 (2.6) | 69 (2.72) | 58 (2.28) | 46 (1.81) | 38 (1.5) | 38 (1.5) | 33 (1.3) | 61 (2.4) | 81 (3.19) | 89 (3.5) | 86 (3.39) | 739 (29.1) |
| Average rainy days (≥ 0.1 mm) | 10 | 10 | 11 | 9 | 8 | 6 | 4 | 4 | 6 | 7 | 8 | 9 | 92 |
| Average relative humidity (%) | 68 | 72 | 77 | 80 | 82 | 78 | 74 | 74 | 75 | 72 | 71 | 69 | 74.3 |
| Mean monthly sunshine hours | 93 | 84 | 124 | 150 | 217 | 270 | 310 | 279 | 210 | 155 | 120 | 93 | 2,105 |

Source: www.mgm.gov.tr

Climate for Arad

| Climate data for Arad, Romania | | | | | | | | | | | | | [hide] |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|-------------------|
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| Record high °C (°F) | 18 (64) | 18 (64) | 26 (79) | 28 (82) | 32 (90) | 34 (93) | 38 (100) | 37 (99) | 36 (97) | 30 (86) | 21 (70) | 17 (63) | 38 (100) |
| Average high °C (°F) | 1 (34) | 4 (39) | 16 (61) | 21 (70) | 23 (73) | 25 (77) | 30 (86) | 28 (82) | 24 (75) | 17 (63) | 9 (48) | 5 (41) | 15 (59) |
| Daily mean °C (°F) | -1 (30) | 1 (34) | 6 (43) | 10 (50) | 16 (61) | 18 (64) | 20 (68) | 20 (68) | 17 (63) | 11 (52) | 5 (41) | 0 (32) | 10.2 (50.4) |
| Average low °C (°F) | -3 (27) | -2 (28) | 1 (34) | 7 (45) | 13 (55) | 15 (59) | 16 (61) | 14 (57) | 11 (52) | 6 (43) | 0 (32) | -2 (28) | 6 (43) |
| Record low °C (°F) | -25 (-13) | -21 (-6) | -15 (5) | -7 (19) | -1 (30) | 2 (36) | 5 (41) | 4 (39) | 0 (32) | -11 (12) | -12 (10) | -17 (1) | -25 (-13) |
| Average precipitation mm (inches) | 22.8 (0.898) | 18.9 (0.744) | 22.7 (0.894) | 41.5 (1.634) | 39.4 (1.551) | 63.2 (2.488) | 44.9 (1.768) | 39.7 (1.563) | 40.0 (1.575) | 28.2 (1.11) | 29.6 (1.165) | 31.3 (1.232) | 422.2 (16.622) |
| Average rainy days | 11 | 11 | 11 | 10 | 12 | 11 | 9 | 8 | 7 | 9 | 12 | 12 | 123 |
| Mean monthly sunshine hours | 62 | 84 | 124 | 150 | 248 | 270 | 279 | 279 | 210 | 155 | 60 | 62 | 1,983 |

Source: Weatherbase^[10] MSN Weather^[11] BBC Weather^[12]

Climate for Porto

| Climate data for Porto | | | | | | | | | | | | | [hide] |
|---------------------------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|-----------------|
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| Record high °C (°F) | 23.3 (73.9) | 23.2 (73.8) | 28.5 (83.3) | 30.2 (86.4) | 34.1 (93.4) | 38.7 (101.7) | 40.0 (104) | 38.5 (101.3) | 36.9 (98.4) | 32.2 (90) | 26.3 (79.3) | 24.8 (76.6) | 40.5 (104.9) |
| Average high °C (°F) | 13.8 (56.8) | 15.0 (59) | 17.4 (63.3) | 18.1 (64.6) | 20.1 (68.2) | 23.5 (74.3) | 25.3 (77.5) | 25.7 (78.3) | 24.1 (75.4) | 20.7 (69.3) | 17.1 (62.8) | 14.4 (57.9) | 19.6 (67.3) |
| Daily mean °C (°F) | 9.5 (49.1) | 10.4 (50.7) | 12.6 (54.7) | 13.7 (56.7) | 15.9 (60.6) | 19.0 (66.2) | 20.6 (69.1) | 20.8 (69.4) | 19.5 (67.1) | 16.4 (61.5) | 13.0 (55.4) | 10.7 (51.3) | 15.2 (59.4) |
| Average low °C (°F) | 5.2 (41.4) | 5.9 (42.6) | 7.8 (46) | 9.1 (48.4) | 11.6 (52.9) | 14.5 (58.1) | 15.9 (60.6) | 15.9 (60.6) | 14.7 (58.5) | 12.2 (54) | 8.9 (48) | 6.9 (44.4) | 10.7 (51.3) |
| Record low °C (°F) | -3.3 (26.1) | -2.8 (27) | -1.6 (29.1) | 0.1 (32.2) | 3.3 (37.9) | 5.6 (42.1) | 9.5 (49.1) | 8.0 (46.4) | 5.5 (41.9) | 1.4 (34.5) | -0.3 (31.5) | -1.2 (29.8) | -3.3 (26.1) |
| Average precipitation mm (inches) | 147.1 (5.791) | 110.5 (4.35) | 95.6 (3.764) | 117.6 (4.63) | 89.6 (3.528) | 39.9 (1.571) | 20.4 (0.803) | 32.9 (1.295) | 71.9 (2.831) | 158.3 (6.232) | 172.0 (6.772) | 181.0 (7.126) | 1,237 (48.7) |
| Average precipitation days (≥ 0.1 mm) | 17 | 16 | 15 | 14 | 13 | 9 | 6 | 5 | 8 | 14 | 15 | 15 | 147 |
| Mean monthly sunshine hours | 124.0 | 130.0 | 192.2 | 216.0 | 257.3 | 273.0 | 306.9 | 294.5 | 225.0 | 182.9 | 138.0 | 124.0 | 2,464 |

Source: Instituto de Meteorologia,^[20] Hong Kong Observatory^[21] for data of average precipitation days and sunshine hours

Climate for Siauliai

| Climate data for Siauliai | | | | | | | | | | | | | [hide] |
|---|------------------|------------------|------------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| Record high °C (°F) | 9.1 (48.4) | 13.3 (55.9) | 21.0 (69.8) | 25.1 (77.2) | 30.4 (86.7) | 32.1 (89.8) | 34.3 (93.7) | 32.4 (90.3) | 28.5 (83.3) | 23.3 (73.9) | 16.9 (62.4) | 13.4 (56.1) | 34.3 (93.7) |
| Average high °C (°F) | -2.6 (27.3) | -1.7 (28.9) | 2.8 (37) | 10.1 (50.2) | 17.3 (63.1) | 20.7 (69.3) | 21.7 (71.1) | 21.2 (70.2) | 16.3 (61.3) | 10.5 (50.9) | 4.0 (39.2) | -0.2 (31.6) | 10.0 (50) |
| Daily mean °C (°F) | -5.1 (22.8) | -4.7 (23.5) | -1.0 (30.2) | 5.2 (41.4) | 11.8 (53.2) | 15.5 (59.9) | 16.7 (62.1) | 16.1 (61) | 11.7 (53.1) | 7.0 (44.6) | 1.8 (35.2) | -2.6 (27.3) | 6.0 (42.8) |
| Average low °C (°F) | -7.9 (17.8) | -7.7 (18.1) | -4.2 (24.4) | 1.2 (34.2) | 6.7 (44.1) | 10.5 (50.9) | 12.3 (54.1) | 11.7 (53.1) | 8.1 (46.6) | 4.1 (39.4) | -0.3 (31.5) | -5.0 (23) | 2.5 (36.5) |
| Record low °C (°F) | -36.0 (-32.8) | -36.4 (-33.5) | -27.0 (-16.6) | -11.5 (11.3) | -5.5 (22.1) | -0.1 (31.8) | 4.7 (40.5) | 2.1 (35.8) | -5.7 (21.7) | -8.5 (16.7) | -17.8 (0) | -31.1 (-24) | -36.4 (-33.5) |
| Average precipitation mm (inches) | 33 (1.3) | 24 (0.94) | 32 (1.26) | 38 (1.5) | 47 (1.85) | 60 (2.36) | 74 (2.91) | 77 (3.03) | 60 (2.36) | 53 (2.09) | 58 (2.28) | 44 (1.73) | 600 (23.62) |
| Average precipitation days | 19 | 14 | 15 | 13 | 13 | 13 | 15 | 15 | 16 | 16 | 19 | 20 | 188 |
| Mean monthly sunshine hours | 37 | 65 | 125 | 176 | 263 | 277 | 261 | 243 | 166 | 100 | 42 | 29 | 1,784 |
| Source #1: World Meteorological Organization ^[6] | | | | | | | | | | | | | |
| Source #2: NOAA (extremes and sun) ^[7] | | | | | | | | | | | | | |

7. 2. The students fill the table below:

Chart 1:

| City | Arad | Porto | Samsun | Siauliai |
|-----------------------------------|------|-------|--------|----------|
| Average precipitation (mm) a year | | | | |
| Average precipitation days a year | | | | |
| Sunshine hours a year | | | | |

Comparative climate's chart in Arad, Oporto, Samsun and Siauliai

RESULTS:

| City | Arad | Porto | Samsun | Siauliai |
|-----------------------------------|-------|-------|--------|----------|
| Average precipitation (mm) a year | 422,2 | 1.237 | 739 | 600 |
| Average precipitation days a year | 123 | 147 | 92 | 188 |
| Sunshine hours a year | 1.983 | 2.464 | 2.105 | 1.784 |

7. 3. The students answer the questions:

1. In which city there is more precipitation during the year? (Porto: 1.237mm)
2. In which city there is less rain during the year? (Arad: 422,2mm)
3. In which city there are more sunshine hours? (Porto: 2.464h)
4. In which city there are less sunshine hours? (Siauliai: 1.784h)
5. In which city there are more rainy days? (Siauliai: 188)
6. In which city there are less rainy days? (Samsun: 92)

7. What can we conclude from the fact that, in Oporto, there are more rainy and sunshine days along the year than in the other cities?

Answer 1: In Oporto, when it rains, it rains harder than in the other places.

Answer 2: In the other cities, there are more cloudy days, but with no rain.

8. Concerning Answer 1, how to prove that the statement is true?

Answer : If you divide the data in line 2 by the one in line 3, you will find the average rain per day:

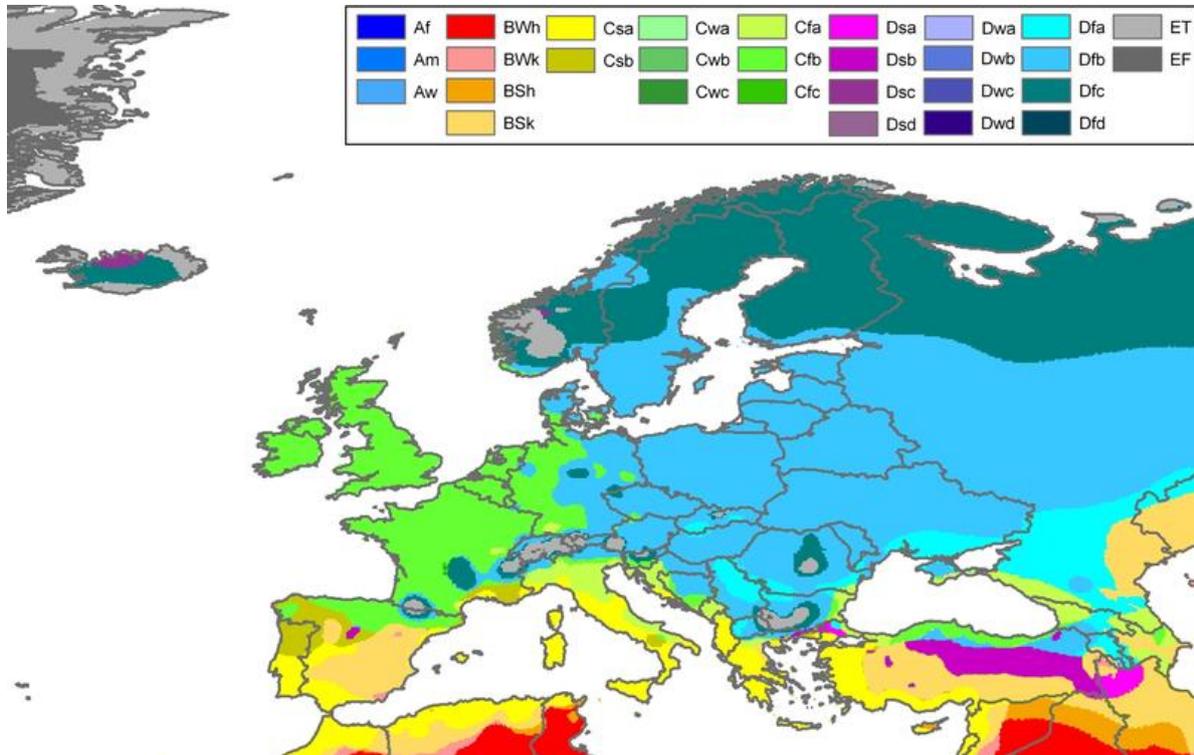
Chart 2: Comparative average precipitation per day in Arad, Oporto, Samsun and Siauliai.

| City | Arad | Oporto | Samsun | Siauliai |
|---|------|--------|--------|----------|
| Average precipitation (mm) for rainy days | | | | |

RESULTS:

| City | Arad | Oporto | Samsun | Siauliai |
|---|------|--------|--------|----------|
| Average precipitation (mm) for rainy days | 3,43 | 8,42 | 8,03 | 3,19 |

7. 4. The teacher asks the students to find information about the kind of climate in each city, looking at the map below. First, they locate the four cities on the map.



Check this site for subtitles:

https://commons.wikimedia.org/wiki/File:Europe_Koppen_Map.png

Chart 3: Type of climate in Arad, Porto, Samsun and Siauliai

| | |
|----------|--|
| Arad | |
| Porto | |
| Samsun | |
| Siauliai | |

RESULTS (example):

| | |
|-------|---|
| Arad | Continental climate with cool and damp winters. The summers are warm to hot. |
| Porto | Porto has a <i>warm</i> mediterranean/dry-summer subtropical climate that is mild with dry, warm summers and moderate seasonality. Regions with this subtype of the Mediterranean climate closely resemble an oceanic climate with generally cloudier and damper conditions than typical Mediterranean climates they are still susceptible to fire in the |

| | |
|----------|--|
| | warm dry summer months. http://www.porto.climatemps.com/ |
| Samsun | Hot mediterranean/ dry-summer subtropical climat. |
| Siauliai | Humid continental climate with severe winters, no dry season, warm summers and strong seasonality |

7. 5. If possible, the students collect information on Internet in order to complete de information on Chart 3.

These websites are given to the students:

<http://www.arad.climatemps.com/>

<http://www.porto.climatemps.com/>

<http://www.samsun.climatemps.com/>

<http://www.siauliai.climatemps.com/>

7. 6. The teacher asks the students to discuss in small groups if the stereotype identified by our partners for Portugal is true.

Possible answer:

The stereotype is false because the Oporto city is the one where there is more rain than the other cities of the project.

Taking in account that the climate is not the same in all parts of the country (as we can see it in the map), we can try to find out if there are places in Portugal to confirm the stereotype.

Let's consider, for example, the city of Faro, in the south of Portugal, in the Algarve region, (cf. table below; "climate data for Faro"). There is less rain and there are less days of rain per year than in the cities that we mentioned above. Then, the average rain is 90 days per year, so even in Faro the stereotype can't be confirmed.

Climate data for Faro

| Valores climáticos para Faro, Portugal | | | | | | | | | | | | | [Esconder] |
|--|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|----------------|---------------|------------------|
| Mês | Jan | Fev | Mar | Abr | Mai | Jun | Jul | Ago | Set | Out | Nov | Dez | Ano |
| Média da temperatura máxima °C (°F) | 16.1 (81) | 16.7 (82) | 18.4 (85) | 19.8 (88) | 22.4 (72) | 25.4 (78) | 28.7 (84) | 28.8 (84) | 26.7 (80) | 23.1 (74) | 19.4 (87) | 16.7 (82) | 21.9 (71) |
| Temperatura média diária °C (°F) | 11.9 (53) | 12.55 (55) | 13.65 (57) | 15.1 (59) | 17.45 (63) | 20.55 (69) | 23.3 (74) | 23.4 (74) | 21.8 (71) | 18.7 (66) | 15.15 (59) | 12.65 (55) | 17.2 (63) |
| Média da temperatura mínima °C (°F) | 7.7 (46) | 8.4 (47) | 8.9 (48) | 10.4 (51) | 12.5 (55) | 15.7 (60) | 17.9 (64) | 18.0 (64) | 16.9 (62) | 14.3 (58) | 10.9 (52) | 8.6 (47) | 12.5 (55) |
| Precipitação mm (polegadas) | 77.8 (3.06) | 72.4 (2.85) | 39.0 (1.54) | 38.4 (1.51) | 21.1 (0.83) | 7.6 (0.3) | 1.4 (0.05) | 4.3 (0.17) | 14.0 (0.55) | 66.6 (2.62) | 86.1 (3.39) | 94.1 (3.7) | 522.8 (20.58) |
| Número médio de dias de chuva | 12 | 13 | 9 | 10 | 7 | 4 | 1 | 1 | 3 | 9 | 10 | 11 | 90 |

Fonte: Organização Meteorológica Mundial (ONU)^[1] 4 de março de 2010

https://en.wikipedia.org/wiki/Faro,_Portugal#Climate

A POSSIBLE EXPLANATION FOR THE STEREOTYPE

The idea that in Portugal there is always sun may be an idea created by foreigners who are coming on holidays, especially in summer. As we saw in 7.3 and in 7.4, in Portugal, summer time is hot and dry and, in the Algarve (the most touristic region), this statement, is more evident, because there are less days of rain in July (1), in August (1) and in September (3).

So, for the stereotype to be true, we must say:

“In Portugal the weather is (usually) sunny in summer”



DOCUMENT N.º 1 : ANALYSIS OF CLIMATE IN THE CITIES OF THE PROJECT

Climate for Samsun

| Climate data for Samsun [hide] | | | | | | | | | | | | | |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|----------------|----------------|------------------|
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| Record high °C (°F) | 24.2 (75.6) | 26.4 (79.5) | 34.5 (94.1) | 37 (99) | 36.4 (97.5) | 37.4 (99.3) | 37.5 (99.5) | 35.2 (95.4) | 38.3 (100.9) | 38.4 (101.1) | 31 (88) | 28.9 (84) | 38.4 (101.1) |
| Average high °C (°F) | 10.9 (51.6) | 11.1 (52) | 12 (54) | 15.3 (59.5) | 19 (66) | 23.7 (74.7) | 26.5 (79.7) | 27 (81) | 23.9 (75) | 20.1 (68.2) | 16.7 (62.1) | 13.2 (55.8) | 18.28 (64.97) |
| Daily mean °C (°F) | 7.1 (44.8) | 7 (45) | 7.9 (46.2) | 11.4 (52.5) | 15.6 (60.1) | 20.3 (68.5) | 23.3 (73.9) | 23.5 (74.3) | 20 (68) | 16 (61) | 12.3 (54.1) | 9.4 (48.9) | 14.48 (58.11) |
| Average low °C (°F) | 4.2 (39.6) | 3.9 (39) | 4.7 (40.5) | 8 (46) | 12.1 (53.8) | 16.2 (61.2) | 19.2 (66.6) | 19.6 (67.3) | 16.5 (61.7) | 12.8 (55) | 9.2 (48.6) | 6.4 (43.5) | 11.07 (51.9) |
| Record low °C (°F) | -8.1 (17.4) | -7.4 (18.7) | -7 (19) | -2.4 (27.7) | 2.7 (36.9) | 9 (48) | 13.4 (56.1) | 14 (57) | 7 (45) | 1.5 (34.7) | -2.8 (27) | -4 (25) | -8.1 (17.4) |
| Average precipitation mm (inches) | 74 (2.91) | 66 (2.6) | 69 (2.72) | 58 (2.28) | 46 (1.81) | 38 (1.5) | 38 (1.5) | 33 (1.3) | 61 (2.4) | 81 (3.19) | 89 (3.5) | 86 (3.39) | 739 (29.1) |
| Average rainy days (≥ 0.1 mm) | 10 | 10 | 11 | 9 | 8 | 6 | 4 | 4 | 6 | 7 | 8 | 9 | 92 |
| Average relative humidity (%) | 68 | 72 | 77 | 80 | 82 | 78 | 74 | 74 | 75 | 72 | 71 | 69 | 74.3 |
| Mean monthly sunshine hours | 93 | 84 | 124 | 150 | 217 | 270 | 310 | 279 | 210 | 155 | 120 | 93 | 2,105 |

Source: www.mgm.gov.tr

Climate for Arad

| Climate data for Arad, Romania [hide] | | | | | | | | | | | | | |
|---------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|-------------------|
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| Record high °C (°F) | 18 (64) | 18 (64) | 26 (79) | 28 (82) | 32 (90) | 34 (93) | 38 (100) | 37 (99) | 36 (97) | 30 (86) | 21 (70) | 17 (63) | 38 (100) |
| Average high °C (°F) | 1 (34) | 4 (39) | 16 (61) | 21 (70) | 23 (73) | 25 (77) | 30 (86) | 28 (82) | 24 (75) | 17 (63) | 9 (48) | 5 (41) | 15 (59) |
| Daily mean °C (°F) | -1 (30) | 1 (34) | 6 (43) | 10 (50) | 16 (61) | 18 (64) | 20 (68) | 20 (68) | 17 (63) | 11 (52) | 5 (41) | 0 (32) | 10.2 (50.4) |
| Average low °C (°F) | -3 (27) | -2 (28) | 1 (34) | 7 (45) | 13 (55) | 15 (59) | 16 (61) | 14 (57) | 11 (52) | 6 (43) | 0 (32) | -2 (28) | 6 (43) |
| Record low °C (°F) | -25 (-13) | -21 (-6) | -15 (5) | -7 (19) | -1 (30) | 2 (36) | 5 (41) | 4 (39) | 0 (32) | -11 (12) | -12 (10) | -17 (1) | -25 (-13) |
| Average precipitation mm (inches) | 22.8 (0.898) | 18.9 (0.744) | 22.7 (0.894) | 41.5 (1.634) | 39.4 (1.551) | 63.2 (2.488) | 44.9 (1.768) | 39.7 (1.563) | 40.0 (1.575) | 28.2 (1.11) | 29.6 (1.165) | 31.3 (1.232) | 422.2 (16.622) |
| Average rainy days | 11 | 11 | 11 | 10 | 12 | 11 | 9 | 8 | 7 | 9 | 12 | 12 | 123 |
| Mean monthly sunshine hours | 62 | 84 | 124 | 150 | 248 | 270 | 279 | 279 | 210 | 155 | 60 | 62 | 1,983 |

Source: Weatherbase^[10] MSN Weather^[11] BBC Weather^[12]

Climate for Porto

| Climate data for Porto [hide] | | | | | | | | | | | | | |
|---------------------------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|-----------------|
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| Record high °C (°F) | 23.3 (73.9) | 23.2 (73.8) | 28.5 (83.3) | 30.2 (86.4) | 34.1 (93.4) | 38.7 (101.7) | 40.0 (104) | 38.5 (101.3) | 36.9 (98.4) | 32.2 (90) | 26.3 (79.3) | 24.8 (76.6) | 40.5 (104.9) |
| Average high °C (°F) | 13.8 (56.8) | 15.0 (59) | 17.4 (63.3) | 18.1 (64.6) | 20.1 (68.2) | 23.5 (74.3) | 25.3 (77.5) | 25.7 (78.3) | 24.1 (75.4) | 20.7 (69.3) | 17.1 (62.8) | 14.4 (57.9) | 19.6 (67.3) |
| Daily mean °C (°F) | 9.5 (49.1) | 10.4 (50.7) | 12.6 (54.7) | 13.7 (56.7) | 15.9 (60.6) | 19.0 (66.2) | 20.6 (69.1) | 20.8 (69.4) | 19.5 (67.1) | 16.4 (61.5) | 13.0 (55.4) | 10.7 (51.3) | 15.2 (59.4) |
| Average low °C (°F) | 5.2 (41.4) | 5.9 (42.6) | 7.8 (46) | 9.1 (48.4) | 11.6 (52.9) | 14.5 (58.1) | 15.9 (60.6) | 15.9 (60.6) | 14.7 (58.5) | 12.2 (54) | 8.9 (48) | 6.9 (44.4) | 10.7 (51.3) |
| Record low °C (°F) | -3.3 (26.1) | -2.8 (27) | -1.6 (29.1) | 0.1 (32.2) | 3.3 (37.9) | 5.6 (42.1) | 9.5 (49.1) | 8.0 (46.4) | 5.5 (41.9) | 1.4 (34.5) | -0.3 (31.5) | -1.2 (29.8) | -3.3 (26.1) |
| Average precipitation mm (inches) | 147.1 (5.791) | 110.5 (4.35) | 95.6 (3.764) | 117.6 (4.63) | 89.6 (3.528) | 39.9 (1.571) | 20.4 (0.803) | 32.9 (1.295) | 71.9 (2.831) | 158.3 (6.232) | 172.0 (6.772) | 181.0 (7.126) | 1,237 (48.7) |
| Average precipitation days (≥ 0.1 mm) | 17 | 16 | 15 | 14 | 13 | 9 | 6 | 5 | 8 | 14 | 15 | 15 | 147 |
| Mean monthly sunshine hours | 124.0 | 130.0 | 192.2 | 216.0 | 257.3 | 273.0 | 306.9 | 294.5 | 225.0 | 182.9 | 138.0 | 124.0 | 2,464 |

Source: Instituto de Meteorologia,^[20] Hong Kong Observatory^[21] for data of average precipitation days and sunshine hours

Climate for Siauliai

| Climate data for Šiauliai | | | | | | | | | | | | | [hide] |
|---|------------------|------------------|------------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|
| Month | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| Record high °C (°F) | 9.1 (48.4) | 13.3 (55.9) | 21.0 (69.8) | 25.1 (77.2) | 30.4 (86.7) | 32.1 (89.8) | 34.3 (93.7) | 32.4 (90.3) | 28.5 (83.3) | 23.3 (73.9) | 16.9 (62.4) | 13.4 (56.1) | 34.3 (93.7) |
| Average high °C (°F) | -2.6 (27.3) | -1.7 (28.9) | 2.8 (37) | 10.1 (50.2) | 17.3 (63.1) | 20.7 (69.3) | 21.7 (71.1) | 21.2 (70.2) | 16.3 (61.3) | 10.5 (50.9) | 4.0 (39.2) | -0.2 (31.6) | 10.0 (50) |
| Daily mean °C (°F) | -5.1 (22.8) | -4.7 (23.5) | -1.0 (30.2) | 5.2 (41.4) | 11.8 (53.2) | 15.5 (59.9) | 16.7 (62.1) | 16.1 (61) | 11.7 (53.1) | 7.0 (44.6) | 1.8 (35.2) | -2.6 (27.3) | 6.0 (42.8) |
| Average low °C (°F) | -7.9 (17.8) | -7.7 (18.1) | -4.2 (24.4) | 1.2 (34.2) | 6.7 (44.1) | 10.5 (50.9) | 12.3 (54.1) | 11.7 (53.1) | 8.1 (46.6) | 4.1 (39.4) | -0.3 (31.5) | -5.0 (23) | 2.5 (36.5) |
| Record low °C (°F) | -36.0 (-32.8) | -36.4 (-33.5) | -27.0 (-16.6) | -11.5 (11.3) | -5.5 (22.1) | -0.1 (31.8) | 4.7 (40.5) | 2.1 (35.8) | -5.7 (21.7) | -8.5 (16.7) | -17.8 (0) | -31.1 (-24) | -36.4 (-33.5) |
| Average precipitation mm (inches) | 33 (1.3) | 24 (0.94) | 32 (1.26) | 38 (1.5) | 47 (1.85) | 60 (2.36) | 74 (2.91) | 77 (3.03) | 60 (2.36) | 53 (2.09) | 58 (2.28) | 44 (1.73) | 600 (23.62) |
| Average precipitation days | 19 | 14 | 15 | 13 | 13 | 13 | 15 | 15 | 16 | 16 | 19 | 20 | 188 |
| Mean monthly sunshine hours | 37 | 65 | 125 | 176 | 263 | 277 | 261 | 243 | 166 | 100 | 42 | 29 | 1,784 |
| Source #1: World Meteorological Organization ^[6] | | | | | | | | | | | | | |
| Source #2: NOAA (extremes and sun) ^[7] | | | | | | | | | | | | | |

Chart 1: Comparative climate's chart in Arad, Oporto, Samsun and Siauliai

| City | Arad | Porto | Samsun | Siauliai |
|-----------------------------------|------|-------|--------|----------|
| Average precipitation (mm) a year | | | | |
| Average precipitation days a year | | | | |
| Sunshine hours a year | | | | |

- In which city there is more precipitation during the year? (_____ : _____m)
- In which city there is less rain during the year? (_____ : _____m)
- In which city there are more sunshine hours? (_____ : _____m)
- In which city there are less sunshine hours? (_____ : _____m)
- In which city there are more rainy days? (_____ : _____m)
- In which city there are less rainy days? (_____ : _____m)
- What can we conclude from the fact that, in Oporto, there are more rainy an sunshine days along the year than in the other cities?

A 1: _____

A 2: _____

8. Concerning A 1, how to prove that the statement is true?

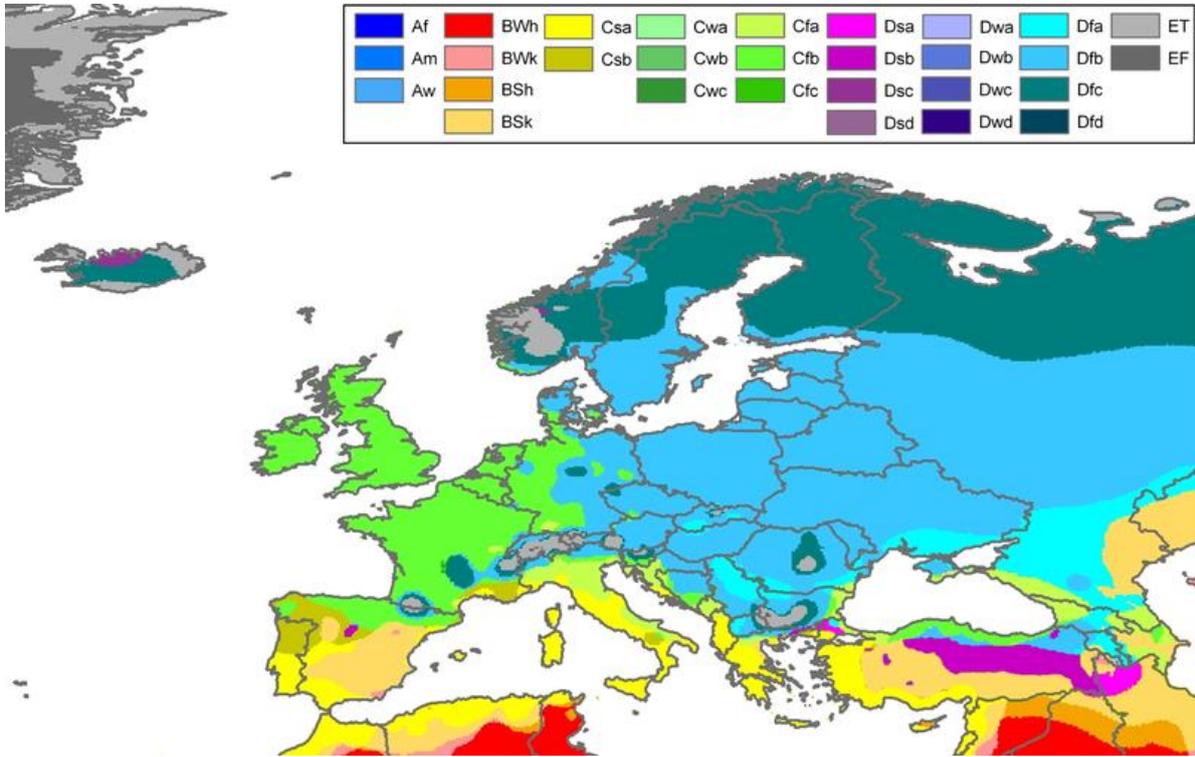
A: _____

Chart 2: Comparative average precipitation per day in Arad, Oporto, Samsun and Siauliai

| City | Arad | Porto | Samsun | Siauliai |
|---|------|-------|--------|----------|
| Average precipitation (mm) for rainy days | | | | |

Chart 3: Type of climate in Arad, Porto, Samsun and Siauliai

| | |
|-----------------|--|
| Arad | |
| Porto | |
| Samsun | |
| Siauliai | |



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CONCLUSIONS ABOUT THE STEREOTYPE
